DOCUMENT RESUME

ED 056 386 EA 003 784

TITLE	Planning Monographs.
INSTITUTION	Delaware State Dept. of Public Instruction, Dover. Div. of Research, Planning, and Evaluation.
PUB DATE	Jul 71
NOTE	64p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Administrator Guides; Bibliographies; *Differentiated Staffs; Educational Accountability; *Educational Planning; Educational Research; Education Vouchers; Operations Research; Performance Contracts; Policy Formation; Program Budgeting; Public Schools; *Sensitivity Training; *Systems Analysis
IDENTIFIERS	Delphi Technique

ABSTRACT

These seven monographs survey the issues and problems of (1) sensitivity training, (2) differentiated staffing, (3) planning-programing-budgeting systems, (4) systems analysis, (5) the delphi technique, (6) performance contracting, and (7) educational vouchers. The papers are designed to be used as a matrix for reference and planning by interested personnel. A short bibliography accompanies each presentation. (MLF)

Proc

ED056386

PLANNING
RESEARCH
EVALUATION

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

PLANNING MONOGRAPHS

EA 003 784

July 1971

Planning, Research & Evaluation Division

Delaware Department of Public Instruction
Dover Delaware

1

INTRODUCTION

The purpose of this publication is to give the reader a basic overview of the issues and problems associated with the several subjects discussed. This publication is not intended to be a complete or comprehensive treatment of the topics. For those readers who want to pursue the subjects in more detail, a short bibliography is attached for each.

Further, suggestions and/or recommendations outlined in this series of papers do not represent a regulatory code nor are they intended to reflect Delawaware Department of Public Instruction office policy. Rather, these papers have been prepared for interested personnel to be used as a matrix for reference and planning purposes.

Wilmer E. Wise, Director
Planning, Research and
Evaluation Division

TABLE OF CONTENTS

	Page
INTRODUCTION	i
SENSITIVITY TRAINING ..... Miss Julia Price, 1970 Governor's Summer Fellow August 1970	1
DIFFERENTIATED STAFFING ..... Miss Julia Price, 1970 Governor's Summer Fellow August 1970	9
PLANNING-PROGRAMMING-BUDGETING SYSTEMS ..... Mr. Carston R. Wagner, August 1970	15
SYSTEMS ANALYSIS ..... Mr. Carston R. Wagner, August 1970	21
THE DELPHI TECHNIQUE ..... Miss Jeanne Mohrmann, November 1970	26
PERFORMANCE CONTRACTING ..... Miss Rita Hegedus, January 1971	33
EDUCATIONAL VOUCHERS ..... Miss Rita Hegedus, January 1971	43

SENSITIVITY TRAINING

4

AUGUST 1970

SENSITIVITY TRAINING

Definition and Background

Sensitivity training is a method of learning in which people meet together in small groups to better understand themselves, other people, and group process. The size of the training group (T-group, for short) ranges from eight to fifteen persons. The leader, or trainer, for the group is a person who is skilled in the behavioral sciences and human relations. Groups are usually held in a setting free from the interruptions of business and normal social pressures. Programs may be completely open-ended in content, or they may focus on a specific problem, such as better management techniques for business executives.

Credit for starting the original T-groups is usually given to Leland Bradford, past director of the Adult Education Division of the National Education Association. Drawing on the work of the social psychologist, Kurt Levin, Bradford and his colleagues established the National Training Laboratories Institute (NTL) for Applied Behavioral Science, which began holding group sessions at Bethel, Maine, in 1947. (Birnbaum, 1969). Two other associations which have worked extensively in the field are the Center for the Studies of the Person, La Jolla, California, and the Esalen Institute, Big Sur, California.

Sensitivity training techniques have been used to help evaluate government programs, such as Peace Corps leadership training and the Agency for International Development (AID). NTL has also conducted training programs for NEA educational groups such as the American Association of School Administrators and the Association of Classroom Teachers (NEA News, 1969).

A growing number of universities offer graduate programs including sensitivity training. Among these are: Case Western Reserve University in Ohio; UCLA Graduate School of Business Administration; Harvard University; and the University of Michigan.

According to Max Birnbaum (1969), director of the Boston University Human Relations Laboratory, there are basically two types of sensitivity training. The first is that which concerns itself with increasing the effectiveness of a person as a member of an organization. The second, which Birnbaum labels as "para-therapeutic", is concerned with individual awareness, growth, and development. So-called marathons, encounter groups, and non-verbal exercises fall into the latter category. The major difference between these types of training is the rigorousness with which personal learning is related to an organizational context. It should be noted, however, that most sensitivity training groups will not be neatly labeled as organizational or personal, that any group can combine both approaches, and that the emphasis of the group depends largely on the trainer and the expectations of group participants.

Theory and Methods

Sensitivity training is based on the theory that learning is influenced largely by attitudes and feelings. People who wish to learn to interact and communicate more effectively with others therefore need to become aware of what their own real feelings, needs, and personality characteristics are. It is also necessary to become sensitive to the needs and feelings of other people.

The goal of sensitivity training is personal change, either for the purpose of achieving personal growth and development, or for the purpose of becoming a more effective leader or group participant. The T-group facilitates personal change in the following ways.

1. Provision of an Isolated Environment

In his everyday work or home environment, the individual is required to act in ways which often block him from trying out new behaviors and attitudes. In the T-group, the participant will be better able to drop the roles which he has previously played, and look at the person underneath the role. Isolation from the usual social supports and sanctions enables him to try out new behavior patterns.

2. Provision of a Supportive Group Atmosphere

The presence of other persons who are willing to help the group member make a desired change is essential:

> "Change, whether in behavior or in related knowledge or attitude, does not usually come easily if the change has any depth or importance for the individual. Group influences can be strong in helping individuals to develop readiness for (overcome resistance to) learning and change... The fact that other group members face the same problems for which change is needed is comforting and reassuring. There is a lessening of feelings of guilt for having a problem and for needing to change old ways in order to solve it." (Schein, 1962)

3. Provision of Direct Feedback in an Atmosphere Conducive to Listening and Learning

Comments and reactions which might easily be ignored or rationalized in everyday activities are seen from a different perspective in a group designed specifically to explore interpersonal relations.

One group participant described his learning experiences in this way:

> "The objectives which this T-group seemed to work towards were: a better understanding of the self and improved interpersonal skills. The objectives were to be attained by a more realistic understanding of how each of us was perceived by other group members. As I initially reflected on some of the criticisms of Sam and the group, I rejected them as not applying to the "real" me. But later, it hit me. As I looked at myself as honestly as I could, I realized that I had moods and days like the behavior they had seen... And the fact was that when I was in those moods, in that behavior pattern, I would elicit similar responses from colleagues, friends, and students. I had not received these criticisms in the past because few would feel free to discuss their responses with me. And even if they did, I might rationalize it away." (Glueck, 1968)

Controversial Issues and Limitations of the T-Group

The accusation of brainwashing raises the question of the influence of the group in producing conformity by group members. There is no doubt that in any organization, T-group or otherwise, individuals can be influenced to conform to group standards, particularly if the group is attractive to the individual. At issue here are the ethical standards of the trainer and group members. Group pressure used to help an individual make changes which he desires is a basic tool of the successful T-group. Pressure by individuals or the group which is used for selfish or destructive purposes has the potential for harming a person who is not emotionally healthy to begin with. For this reason, T-group trainers and their organizations will do everything possible to discourage participation by persons seeking or needing psychiatric help. The T-group is not to be confused with group therapy. Under the guidance of a skilled trainer, harmful group pressures can be either averted or examined in order to help the participants resist pressures in the future. Used in this way, T-grouping is the opposite of brainwashing, since it has the potential for increasing individuality and facilitating expression of individual needs.

The differentiation of different types of training is necessary if positive change is to take place. For example, a T-group aiming at personal growth might be appropriate if it takes place in a setting where the individual can remain anonymous. If however, it is applied to a group in which participants are co-workers, a number of problems can result. Either personal inhibitions heighten resistance to change so that no communication takes place, or the revelation of intimate personal information makes continuing work relationships very difficult. (Birnbaum, 1969)

9

In almost every case, the dangers inherent in sensitivity training are the dangers of careless or inappropriate use by unskilled practitioners. An NTL manual (Schein, 1962) puts forth the following as some of the necessary characteristics for a trainer.

1. Professional background in one or more of the following areas: sociology, psychology, social work, educational psychology, psychiatry, personnel, administration.
2. Experience as a group leader.
3. Self-understanding.
4. Personal security.
5. Training skills in applying techniques.
6. Democratic philosophy.

Sensitivity Training and Education

Training sessions appear to be useful in helping schools to deal with change processes. In Bristol Township, Pennsylvania, for example, the Boston University Human Relations Laboratory Staff were called in to help the schools and the community to deal with increasing incidents of racial conflict and unrest. (Cottle, 1969). Seven hundred school staff and one hundred community members participated in workshops designed to increase understanding of racial conflict and to devise ways of changing procedures within the school to alleviate tensions between blacks and whites, and younger and older members of the community. As a result of this process of planned change, a student disciplinary board was set up to deal with problems which previously had been dealt with unsuccessfully by school administrators. The most dramatic result of the workshops was the

change in attitude and interpersonal skill of the junior high school principal, who was at one time known as "Karate Joe" for his almost exclusively punitive approach toward students. According to this principal:

> "No one used to be more bullheaded than I. The muscle worked. Now I see it's bad. I can deck 'em, but it isn't going to prove anything except that the kids are right about the Establishment." (Cottle, 1969)

Conclusions

The decision as to whether or not to use sensitivity training must be based on careful assessment of the needs of the individuals and organizations involved. These needs must be matched with an appropriate method of training.

The difficulty in knowing when to apply human relations or sensitivity training is similar to the difficulty encountered by a trainer in knowing when to apply various techniques. Whatever these difficulties, however, sensitivity training has been shown to be effective if applied skillfully in the right circumstances. As the field matures, a larger body of theoretical and practical knowledge should enable both laymen and professionals to make better use of the relatively unexplored science of human relations.

BIBLIOGRAPHY

Anderson, Bruce Ray. "A Study of Educational Change Based on a Strategy of Teacher Self-Assessment: Trial of a Strategy of Change in a Bolivian Setting." Dissertation Abstracts 1968 28(12-8) 4839-4840.

Birnbaum, Max. "Sense and Nonsense About Sensitivity Training." Saturday Review 52: 82-83, 19-90, November 15, 1969.

Bradford, Leland. Human Forces in Teaching and Learning. National Training Laboratories, Washington, D.C., 1961.

Cottle, Thomas J. "Bristol Township Schools: Strategy for Change." Saturday Review 52: 70-71, September 20, 1969.

Dorr, Robin. National Education Association News Release. December 12, 1969.

Glueck, William F. "Reflections on a T-Group Experience." Personnel Journal, pp. 500-504, July 1968.

Miles, Matthew B. Learning to Work in Groups, Columbia U., New York, 1959.

National School Public Relations Association. "Sensitivity Training: What's That?" 1970.

NTL Institute News and Reports. "Commonly Asked Questions About Sensitivity Training and NTL Institute". Volume 3, No. 3. June 1969.

Rogers, Carl R. Freedom to Learn. Charles E. Merrill Publishing Company, Columbus, Ohio , 1969.

Schein, Edgar H. Issues in Human Relations Training. NTL, 1962.

Seashore, Charles. "What is Sensitivity Training?" NTL Institute News and Reports, Vol 2, No. 2, April 1968.

Simon, Dan. "Sensitivity Training in the Classroom," Part I. NEA Journal, Jan 1967.

Tannenbaum, Robert, Weschler, Irving, and Massarik, Fred. Leadership and Organization: A Behavioral Science Approach. McGraw-Hill, New York, 1961.

Newly Published Books on Sensitivity Training:

Please Touch: A Guided Tour of the Human Potential Movement, by Jane Howard, (McGraw-Hill, 1970) 271 pages.

Encounter: A Weekend with Intimate Strangers, by John Mann (Grossman, 1970) 235 pages.

Marathon 16, by Martin Shepard and Marjorie Lee (Putnam, 1970) 253 pages.

Body Language, by Julius Fast (Evans), Lippincott, 1970, 192 pages.

DIFFERENTIATED STAFFING

AUGUST 1970

DIFFERENTIATED STAFFING

Background

Differentiated staffing is a concept of organization that seeks to make better use of educational personnel. The educational problems to which differentiated staffing is addressed include the following:

1. The need for more flexible, individualized learning programs for students.
2. The need for use of teacher talents and abilities in areas appropriate to these abilities.
3. The need to encourage talented persons to make a career out of teaching.
4. The need for more teacher involvement in planning the total school program.

Definition

Differentiated staffing has been well defined by the National Commission on Teacher Education and Professional Standards as the following:

> "...under a differentiated staffing arrangement, education personnel would be selected, educated, and deployed in ways that would make optimum use of interests, abilities, and commitments and afford them greater autonomy in determining their own professional development. A differentiated staff would include teachers and a variety of special service personnel, subject matter specialists, administrators, student teachers, interns, persons from other professions, craftsmen, volunteers, and several categories of paraprofessionals and teacher aides. Within the classroom teaching ranks, some professionals might serve as leaders, responsible for induction of new teachers, for coordination of teams of associates and assistants, and for the general management of the learning setting. Others might function mainly as diagnosticians of learning difficulties, constructors of individualized programs for pupils, developers of interpersonal attitudes and behaviors, and the like." (7)

Also involved in differentiated staffing is the payment of teachers according to the level of responsibility of their positions, rather than on the usual single-salary schedule. In addition, differentiated staffing programs often differentiate contractual periods. For example, teachers with more responsibility may contract to work a ten or eleven-month school year.

Selected Examples

In operation, the organization under a differentiated staffing system ranges widely from school to school. For example, Temple City, California, has a teacher hierarchy which encompasses master teachers, senior teachers, staff teachers, teacher associates, and several levels of paraprofessionals. Teacher salaries range as high as $25,000. Walnut Hills Community Elementary School in Denver's Cherry Creek District calls the top of its hierarchy a "team leader". He accepts responsibility for about 125 children, and receives a salary of from $500 to $2,000 over the regular schedule. His team includes a senior resident, junior resident, apprentice teacher, and others. (3)

Advantages

Possible advantages which may be derived from the use of a differentiated staffing system include the following:

1. Talented teachers who desire only limited professional responsibility could be more widely used.
2. Teachers would be able to do research, planning of curricula, and administrative work, in addition to classroom teaching.

3. Teachers who take on additional responsibilities would receive financial compensation.
4. Teachers would be promoted on the basis of experience and academic course work specific to the requirements of their positions. Postgraduate courses would no longer be taken on an indiscriminate units-equal-dollars basis.
5. Colleges could begin to train teachers to handle specific responsibilities and teaching skills.
6. More personnel would be available to help students in the form of paraprofessionals and professionals equipped to handle specific areas and types of learning.

Controversial Issues

The greatest objection raised to differentiated staffing is the contention that, in reality, the differentiated staffing system is merely merit pay in disguise. After years of fighting for an objective and equitable method of salary assignments, the single salary schedule has been defended by teachers as the only way to prevent favoritism and abridgment of academic freedom. Under the single salary schedule, teachers receive raises in pay only on the basis of longevity and academic credentials. Subjective judgements on the "quality" of teaching are thus eleiminated as a criterion for financial reward. The supporters of differentiated staffing claim that the differentiated pay scale is not a form of merit pay. Rather than payment for superior teaching quality, the differentiated staffing system would pay for increased difficulty and level of responsibility in a particular job.

The question raised here, however, is who decides which teachers are capable of handling more responsibility. One proposal has the teachers themselves choose a colleague as a "team leader" or senior teacher. This approach has been used successfully at Temple City. It will be interesting to discover whether such a procedure increases cooperation among teachers, or causes divisions and animosity among the teaching staff. In all cases, teachers must be deeply involved in the planning and implementation of a successful differentiated staffing program. Districts which have failed to do this have had to deal with bitter opposition including teacher strikes.

Increased specialization according to ability and interest seems preferable to the existing system in which teachers, as generalists, are expected to perform in a number and variety of areas beyond the scope of any one individual. With specialization, however, there is always the danger that flexibility would be decreased as roles become rigidly defined. Awareness of this possibility is necessary if it is to be averted by schools using differentiated staffing.

The NEA Association of Classroom Teachers raises another question concerning the basic purpose of differentiated staffing. Supporters of differentiated staffing claim that it will keep good teachers in the classroom by offering a well-salaried alternative to administrative work. Yet in every proposed system, the accompanying salary schedule provides pay in inverse proportion to the time spent with students. Rather than increasing the status of the classroom teacher, this aspect of differentiated staffing seems merely to create a new educational hierarchy in which teacher/administrators assume the roles of the present administrators.

Implications for Further Study

The above discussion suggests the following issues for continued study:

1. Is the actual teaching process as important as the planning and other supportive tasks related and essential to teaching?
2. Are there not conceivably a variety of tasks of equal importance in the teaching process?
3. What are or will be the criteria for judging the relative importance of the various differentiated teaching roles?
4. Can differentiated staffing be accomplished only by establishing a new hierarchy within the school system?
5. Might there not be horizontal movement for the teacher rather than vertical movement, or a plan of rotating assignments that could be equally effective? (6)

Until school districts across the country learn from their experiences in differentiated staffing, these questions remain unresolved issues.

BIBLIOGRAPHY

1. Barbee, Don. "Differentiated Staffing: Expectations and Pitfalls" TEPS Write-in Papers on Flexible Staffing Patterns, No. 1 NEA, Washington, D.C.

2. Editors of Education USA "Differentiated Staffing Stirs Debate" The Shape of Education for 1970-71, Vol. 12, Washington, D.C.: National School Public Relations Association, 1970.

3. Education USA Special Report: Differentiated Staffing in Schools, National School Public Relations Association, Washington, D. C., 1970.

4. English, Fenwick. "Et tu, educator, differentiated staffing?" TEPS Write-in Papers on Flexible Staffing Patterns, No. 4 NEA, Washington, D. C.

5. NEA Press, Radio, and Television Relations: "Staff Differentiation: Answer to the Merit Pay Debate?" December 3, 1968.

6. NEA, Classroom Teachers Speak on Differentiated Teaching Assignments; Report of the Classroom Teachers National Study Conference on Differentiated Teaching Assignments for Classroom Teachers, Washington, D. C., 1969.

7. Tillotson, Carolyn L., editor "Differentiated Teaching Staff: A New Concept" National Committee for Support of the Public Schools; Washington, D. C. January 1970.

PLANNING
PROGRAMMING - BUDGETING
SYSTEMS

20

AUGUST 1970

140

PLANNING - PROGRAMMING - BUDGETING SYSTEMS

Definition

A Planning, Programming, Budgeting System (PPBS) is an integrated system that provides school executives with better information for planning educational programs and for making choices among the alternate ways in which funds can be allocated to achieve the school district's established objectives. It aids the decision-making process by identifying goals and objectives, the programs to reach these objectives, the methods of evaluating the programs, and the cost of operating them.

The analysis and evaluation which are central to the implementation of a Planning, Programming, Budgeting System require identification of the public school end-products. Analysis requires that activities be considered as they relate to each other. Therefore, the search for alternative ways of meeting defined objectives are considered through various combinations of personnel, facilities, and materials to bring about the desired educational product.

Within a PPBS, the familiar processes of program development and budgeting are explicitly combined. It is a system in the sense of centering on program goals, objectives, and evaluation.

The value of PPBS in education results not from the individual techniques that have been developed, but from the integration of them into a system and their procedural application to educational decision making.

PPBS Concepts

In an educational setting, PPBS is based on three concepts:

(1) The existence in each school district of an analytic capability which carries out continuing in-depth analyses by reducing objectives and programs to quantifiable units so that these programs can be evaluated.

(2) The existence of a multi-year planning and programming process which uses an information system to present data in meaningful categories essential to the making of major decisions by school administrators; and

(3) The existence of a budgeting process which can take broad program decisions, translate them into more refined decisions in a budget context, and present the appropriate educational program and financial data for action by the superintendent of schools and the board of education.

PPBS Essentials

Further, PPBS in education must have the following four essentials:

(1) An output-oriented educational program structure which presents data on all of the operations and activities of the schools in categories which reflect the schools' goals and objectives;

(2) Analyses of possible alternative objectives of the schools and of the alternative programs for meeting these objectives. Many different techniques of analysis will be appropriate, but central to this step should be analyses in which alternative educational programs will be compared with respect to both their costs and their benefits;

(3) Adherence to a time cycle within which well considered information and recommendations will be produced when needed for decision making and for the development of the budget and educational program;

(4) Acceptance by line officials, with appropriate staff support, of responsibility for the establishment and effective use of the system.

PPBS Products

The products of such a system in education will include:

(1) A comprehensive multi-year program and financial plan systematically updated;

(2) Analyses of program results related to objectives prepared annually and used in the budget preview; special studies in depth from time to time; and other information which will contribute to the annual budget process.

The overall system is designed to enable each school district to:

(1) Make available to board members and administrators more concrete and specific data relevant for their broad decisions;

(2) Spell out more concretely the objectives of educational programs;

(3) Analyze systematically and present for the board's and the superintendent's review and decision, possible alternative objectives and alternative educational programs to meet those objectives;

(4) Evaluate thoroughly and compare the benefits and costs of educational programs;

(5) Produce total, rather than partial, cost estimates of educational programs;

(6) Present on a multi-year basis the prospective costs and accomplishments of educational programs;

(7) Review objectives and conduct educational program analyses on a continuing, year-round basis, instead of on a crowded schedule to meet budget deadlines.

PPBS Cycle

(1) The needs of the community must first be identified. These are the needs of the children, adults, business and industry, other governmental units, and all elements of the community.

(2) These needs must then be translated into goals. Goals are general statements of purpose or intent, they are not related to a specific period of time, and they are not quantifiable or measurable in any way other than a broad subjective review. These goals need to be arranged in hierarchical structures in order that they may be broken down into manageable units. A typical goal structure is:

(a) To provide all students the opportunity to develop skills and characteristics enabling them to gain employment.

(b) To provide all students the opportunity to develop skills and characteristics in business, industrial arts, and agriculture.

(c) To provide all students the opportunity to develop skills and characteristics in typing, shorthand, bookkeeping, and office machine operation.

(d) To provide all students the opportunity to develop skills and characteristics in bookkeeping.

(3) Objectives, which are desired quantifiable accomplishments within a time framework must next be developed. These objectives must:

- Relate to a goal
- Be measurable
- State the method of measurement
- Indicate the evaluative criteria
- State the time period for achievement

(4) When the goals and objectives have been developed, approved, and documented, it is necessary to develop programs to accomplish the objectives. In most school districts these programs already have been documented in the form of course outlines or curriculum guides and quite often include some objectives. At this point, the evaluative instruments which will be used to assess the program operation should be identified.

(5) The dollar figures must next be developed in the form of a budget for the approved programs. Not only the budget for the next year is prepared, but financial plans for a period of several years, usually five, are developed. This financial plan is termed a Multi-Year Financial Plan and is generally a significant departure from the current practice of developing budgets for only the following year. It is at this point that alternative budgeted programs are examined and selected based on the resources available.

(6) In the PPBS cycle the next activity is the actual operation of the programs and the management of the resources to implement them. These resources are, of course, the people, places, and things--the staff, buildings, supplies and equipment.

(7) The final step in the cycle is to evaluate the effectiveness of the program operations against the criteria established for the various program objectives. The process then recycles using the evaluation information to determine whether objectives were attained or were not attainable because of either program or resource limitation.

A PPB system is a consistantly changing process. The initial effort to start up a system requires that all current programs and activities be subjected to this systematic analysis process. As ineffective programs and activities are purged from the system their replacements are subjected to the same process.

BIBLIOGRAPHY

Bureau of the Budget, Executive Office of the President. Planning - Programming - Budgeting. Bulletin Number 68-2. Washington, D.C.: U.S. Government Printing Office, July 18, 1967.

Hartley, Harry J. Educational Planning, Programming, Budgeting: A Systems Approach. Englewood Cliffs, New Jersey: Prentice-Hall, 1968.

Novick, David, Editor. Program Budgeting. Cambridge: Harvard University Press, 1965.

Perkins, Joseph A., Jr. PPBS and MIS - Their Role in Managing Education. Unpublished manuscript: Peat, Marwick, Mitchell & Co., Washington, D.C.

SYSTEMS ANALYSIS

27

AUGUST 1970

20a

SYSTEMS ANALYSIS

Systems analysis, as a planning tool, is an orderly way of identifying and ordering the differential components, relationships, processes, and other properties of anything that may be conceived as an integrative whole. It involves the evaluation and comparison of alternative ways of achieving objectives on the basis of the resource costs and the benefits associated with each alternative. Critical to this process is the use of models, abstraction of the real world, which can be analyzed in lieu of experimentation in the real world. Furthermore, systems analysis is an orderly, analytic study designed to help a decision maker identify a preferred course of action from among possible alternatives.[4]

Systems analysis may be used with problems in which it is difficult to decide what ought to be done as well as how to do it and when it is not clear what the most efficient means are and where many of the factors in the problem elude quantitication.[2]

The Process of Analysis Model[4]

There are five elements of the model and each is present in every analysis of choice and should always be explicitly identified.

1. The Objectives. The first and most important task of the analyst is to discover what the decision maker's objectives are and then how to measure the extent to which these objectives are attained.

2. The Alternatives. The alternatives are the means by which it is hoped the objectives can be attained. They may be policies or strategies or specific actions or instrumentalities and they need not be substitutes for each other or perform the same specific function.
3. The Costs. Most costs can be measured in money, but their true measure is in terms of the opportunities they preclude.
4. A Model. A model is a simplified stylized representation of the real world that abstracts the cause-and-effect relationships essential to the question studied. This may take the form of a mathematical formula, a computer program or a purely verbal description of the situation, in which intuition alone is used to predict the consequences of various choices. The purpose of the model is to estimate for each alternative the cost-benefits.
5. A Criterion. A criterion is a rule or standard by which to rank the alternatives in order of desirability. It provides a means for weighing cost against effectiveness.

The process of analysis takes place in three overlapping stages. In the first, the formulation stage, the issues are clarified, the extent of the inquiry limited, and the elements identified. In the second, the search stage, information is gathered and alternatives generated. The third stage is evaluation.

To start the process of evaluation the various alternatives are examined by means of the models. The models tell us what consequences or outcomes can be expected to follow from each alternative; that is, what are the costs in relation to the achievement of the objectives. A criterion can then be used to weigh the costs against performance, thus the alternatives can be arranged in order of preference.[2]

In brief, a systems analysis attempts to look at the entire problem and look at it in its proper context. Characteristically, it will involve a systematic investigation of the decision maker's objectives and of the relevant criteria; a comparison - quantitative insofar as possible - of the cost, effectiveness, risk, and timing associated with each alternative policy or strategy for achieving the objectives; and an attempt to design better alternatives and select other goals if those examined are found wanting.

Principles of Good Analysis[4]

1. It is all important to tackle the right problem. A large part of the investigator's effort must be invested in thinking about the problem, exploring its proper breadth, and trying to discover the appropriate objectives and to search out good criteria for choice.

2. The analysis must be systems oriented. Rather than isolating a part of the problem by neglecting its interactions with other parts, an effort should be made to extend the boundaries of the inquiry as far as required for the problem at hand, to find what interdependencies are important, and to study the entire complex system.

3. The presence of uncertainty should be recognized, and an attempt made to take it into account. The analysis attempts to identify uncertainties and evaluate their impact on the answers. It should also include a contingency table showing the effectiveness and cost associated with each significant alternative for various future environments and for each set of assumptions about the uncertainties.

4. The analysis attempts to discover new alternatives as well as to improve the obvious ones. The invention of new alternatives can be much more valuable than an exhaustive comparison of given alternatives, none of which may be very satisfactory.

5. The analysis should strive to attain the standards traditional to science. These are (1) intersubjectivity (replication); (2) explicitness: use of calculations, assumptions, data, and judgements that are subject to checking, criticism and disagreement; and (3) objectivity: conclusions do not depend on personalities, reputations, or vested interests.

BIBLIOGRAPHY

1. Anthony, Robert N. Planning and Control Systems: A Framework For Analysis. Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1965.

2. Fisher, G.H. "The Analytical Bases of Systems Analysis." In David I. Cleland (Ed.), Systems, Organization, Analysis, Management: A Book of Readings. New York: McGraw-Hill, 1969.

3. Hartley, Harry J. Educational Planning-Programming-Budgeting: A Systems Approach. Englewood Cliffs, N.J.: Prentice-Hall, 1968.

4. Quade, E.S. "Systems Analysis Techniques for Planning-Programming-Budgeting." In David I. Cleland (Ed.), Systems, Organization, Analysis, Management: A Book of Readings. New York: McGraw-Hill, 1969.

THE DELPHI TECHNIQUE

33

NOVEMBER 1970

25a

DELPHI TECHNIQUE

Background

The Delphi technique is a form of operations research developed by members of the Rand Corporation. It can be used in an attempt to arrive at efficient operating decisions in a situation in which exact knowledge of an issue in question is unavailable. This technique emphasizes the control of a situation through the use of expert judgements. The Delphi technique attempts "to induce opinion convergence through a sequence of questionnaires interspersed with controlled feedback and the computation of a consensus based on self-appraised competence ratings."[1]

Current planning decisions are affected by one's predictions about the future whether these predictions are implicit or explicit, scientific or intuitive. In most fields of endeavor, long-range planning is also influenced by one's expectations regarding the world and the future. The Delphi technique was developed in an effort to obtain from individuals who are recognized as experts in the area of concern, intuitive judgements about the future as systematically as possible. In the literature, it is further suggested that this technique might, in a given situation, succeed in crystallizing the nucleus of a predictive theory of the subject matter under inquiry by forcing experts into formulating formerly inarticulated reasons for their opinion.[2]

34

In formulating policy, both factual judgements and value judgements are involved. The Delphi technique has been employed to elicit and process both types of judgement. The experimental work on the Delphi technique has, to date, dealt exclusively with factual judgements. In the application of Delphi procedures, however, value judgements have been educed from judges. The most typical form of eliciting value judgements employing the Delphi technique is in the attempt to formulate major objectives of an organization and to weight these objectives according to some scale.

The Delphi technique eliminates committee activity usually associated with arriving at consensus thus reducing the influence of certain psychological factors such as specious persuasion, an expert's unwillingness to abandon publicly expressed opinions and the bandwagon effect of majority opinion.

Method Employed in the Delphi Technique

The Delphi technique uses a sequence of questionnaires to elicit predictions individually from experts in the area of concern. A summary of responses from each round of questionnaires is fed back to the expert-respondents before they reply to each succeeding round of questionnaires. The basic feedback is the median and the upper and lower quartiles of previous-round answers. In addition, certain questions directed to expert-respondents may ask for their reasons for opinions which they have expressed on these items and a collection of such reasons may then be presented on a succeeding questionnaire to each

expert-respondent in the group with an invitation to reconsider or possibly to revise earlier responses. Inquiry into reasons for expressed opinions and subsequent feedback of the reasons of other experts may stimulate them to take into account considerations they inadvertently may have neglected or to give more weight to factors which they had originally considered unimportant. In certain instances, some questions are repeated on succeeding questionnaires and a comparison is made between answers on each questionnaire administration. Further, questions may be reworded on succeeding questionnaires in an effort to eliminate ambiguities which may be brought to the attention of the investigators by respondents' comments. The iterative structure of the questionnaires allows a specific group of expert-respondents to be its own control.

The Delphi technique employs anonymous responses from experts in that opinions of members of a given group are obtained by formal questionnaires. This feature of the technique is aimed at reducing the effect of dominant individuals in committee activities. Interaction between members of a group is effected by a systematic exercise employing several iterations with controlled feedback between questionnaires in an attempt to reduce noise, a common problem in group discussion. In order to reduce group pressure toward conformity, group opinion is defined as the appropriate aggregate of individual opinions on the final round of questionnaires. Thus, the Delphi technique is designed to minimize the biasing effects of dominant individuals, of irrelevant communications, and of pressures toward group conformity.

Investigations using the Delphi technique may provide information on the following:

1. The content of the predictions themselves.
2. The basis on which respondents claimed their predictions were made.
3. The range of expert-respondents views on given items.
4. The convergence of views following data feedback.
5. The expert-respondent's critiques of each other's views.

Discussion

A number of experiments conducted by Dalkey[3] to evaluate the effectiveness of the Delphi procedures for formulating group judgements demonstrated that:

1. On the initial round of questionnaires, there was a wide spread of individual answers.
2. With iteration and feedback, convergency occurred, that is the distribution of individual responses progressively narrowed.
3. In general, the group response, defined as the median of the final round of individual responses, was more accurate.

Gordon and Helmer[2] suggest that the following points be considered when using Delphi procedures:

1. Keep panel membership to a minimum and ask for a commitment from participants before implementing Delphi techniques in order to insure as stable a panel membership for a study as possible.

2. The time lapse between questionnaire rounds should be short in order to prevent dropout by respondents or shift of their opinion due merely to the passage of time and/or a change in the state of knowledge.
3. Avoid ambiguous questions.
4. Addition to each question of a self-appraisal of the respondent's degree of competence in answering that question to ascertain a respondent's competence. (There are, however, problems in the scale comparability of different respondent's self-appraisals and how best to use self-appraisal estimates in devising consensus formula.)
5. Allow enough cycles for adequate feedback not only of primary reasons for opinions, but for a critique of such reasons.

The authors of the Delphi technique make no claims for the reliability of predictions obtained using this method. However, they state that since the obtained predictions "represent explicit, reasonsed, self-aware opinions, expressed in the light of the opinions of associate experts, such predictions should lessen the chance of surprise and provide a sounder basis for long-range decision-making than do implicit, inarticulate, intuitive judgements."[2]

Even if the Delphi procedure is only comparable to other more traditional modes of consensus formation, the authors claim it has an advantage in cost, that is, it avoids the need to assemble experts in one place. A further advantage claimed is reliability in the sense that subject

experts are not subjected to the persuasiveness of oratory of a vocal member of the group nor to the face-to-face confrontation with majority opinion but only to anonymous pressure exerted by feedback of some information on the range of opinions held by the group.

BIBLIOGRAPHY

1. Brown, Bernice and Helmer, Olaf, "Improving the Reliability of Estimates Obtained from a Consensus of Experts." Santa Monica, California: The Rand Corporation, September 1964. (No. P. 2986)

2. Gordon, T.J., and Helmer O., "Report on a Long-range Forecasting Study." Santa Monica, California: The Rand Corporation, September 1964. (No. P. 2982)

3. Dalkey, Norman C., "The Delphi Method: An Experimental Study of Group Opinion." Santa Monica, California: The Rand Corporation, June 1969. (No. RM 5888-PR)

4. Dalkey, Norman C., and Helmer, O., "An Experimental Application of the Delphi Method to the Use of Experts." Management Science, 9. (1963)

5. Helmer, O., and Rescher, Nl, "On the Epistemology of the Inexact Sciences." Management Science, 6. (1959)

6. Kaplan, A., Skogstad, A., and Girschick, M.A., "The Prediction of Social and Technological Events." Public Opinion Quarterly, 14. (1950)

PERFORMANCE CONTRACTING

41

JANUARY 1971

320

PERFORMANCE CONTRACTING

Background

Performance contracting is enjoying a lively existence because it is presently regarded as a feasible solution to accountability. With the allocation of federal funds (ESEA, Title VIII) to the Texarkana School District of Texas and Arkansas, accountability through measured performance became more than just a concept. Despite the widely publicized failure in this case by the contractor to perform ethically, $6.5 million in federal funds were distributed in performance contracts for the 1970-71 school year.

By definition, accountability is broader in scope than performance contracting. The idea most basic to educational accountability is that of a process whereby any individual can determine for himself if the schools are producing the results promised.(9) A performance contract is only one such process, even though, the terms are frequently used interchangeably. Accountability was rated as a nationwide concern by President Nixon in his education message on March 3, 1970. He stated in part "School administrators and school teachers alike are responsible for their performance, and it is in their interest as well as in the interests of their pupils that they be held accountable."(18) James E. Allen, Jr., as U. S. Commissioner of Education, voiced a similar view. He believed

> Broadly generalized statements of goals will not satisfy the increasing intense scrutiny of the public, of legislative bodies, of businessmen and taxpayers....Support of education will be secured only by well-defined, precise presentation of goals that can be understood clearly and appraised accurately. Support will depend more and more upon evaluation and accountability that can unequivocally substantiate successful performance.(2)

"The missing element," aptly noted by Russell W. Peterson, Governor of Delaware,

"is accountability for output. The educators have been held accountable for their use of resources rather than in terms of what the students learn." (17)

The concept of accountability had grass roots support for several years. While Congress was searching, and still is, for ways to hold educators accountable for federal funds in terms of concrete gains in pupil learning, on the local level, school boards were facing situations that led to similar explorations with faster results. Pushed to the wall by teacher demands for higher salaries and pressured by parent groups to raise their children's standards of achievement, school boards took the initiative to seek solutions from industry. (22) Accountability as sought by school boards had two dimensions. Namely, an access to information about performance and secondly, a desire to change factors thought to be responsible for unsatisfactory performance.(6) Industry's answer to the school board's problem was a performance contract.

The efforts on either side, however, could not have succeeded without federal aid. Supportive interest in terms of financial assistance was provided for experimentation in this area under the strong leadership of Leon Lessinger, USOE Associate Commissioner of Education. Charles L. Blaschke, President of Education Turnkey Systems, Inc. of Washington, D. C., was the outstanding spokesman and leader for industry.(7)

Definition of Terms

In general, a performance contract is an incentive-penalty agreement between a school system and a private educational agency or an industrial concern for certain instructional services. The terms of the contracts are such that if designated pupils achieve specified educational gains as a result of contractor-administered activities, the contractor receives a set

compensation. If pupils fall below expectations, the contractor receives less reimbursement and likewise if the pupils exceed specifications, the contractor receives more.(18) However, more than a financial relationship of a money-back guarantee is implied. Although not always clearly stated, the turnkey phase is essential to a performance contract. The analysis of what distinguishes the contractor's program from what the schools will have to do to run it afterwards is called turnkey.(19) If new programs work only as long as contractors are running them, obviously they will not help to bring about any permanent change in the schools. It is necessary, therefore, that the responsibility be transferred to the school and its teachers.

The six education companies participating in performance contracts supported by federal funds are similar in that they employ teaching machines, programmed learning techniques, and incentives for students, teachers, and sometimes parents.

Texarkana

The first use of this innovative approach, and the only real data on performance contracting as yet available, was in September, 1969. The USOE awarded $270,000 to the Texarkana School District (Arkansas) and Liberty Eylau School District (Texarkana, Texas) for a five year dropout prevention program under ESEA, Title VIII (Dropout Prevention). The funds were to be directed toward academic deficiencies in reading and mathematics.

Approximately twelve educational technical companies bid for a performance contract. Dorsett Educational Systems of Norman, Oklahoma was awarded the contract. In simple terms, the contract stipulated that payments to the company would fluctuate according to the performance of the students involved

in the program. Dorsett was paid $105,000 before a student's comment on the similarity of the learning and testing material led to a more thorough investigation by Drs. Dean Andrew and Lawrence Roberts, independent auditors. They found the originally significant gains to be contaminated by the instruments. They concluded "The teaching of test items or closely related test items has invalidated the test results to the extent they cannot be used as a valid measure of achievement."(23) Their conclusions were upheld by another investigator, EPIC Diversified Systems Corporation of Tucson, Arizona. Dorsett agreed some students received "improper training." Thus, no further payments were made by the school board. Instead, a performance contract for the following year was awarded to Educational Development Laboratories, a division of McGraw-Hill Book Company.

In retrospect, the failure was chiefly Dorsett's but also liable are the USOE for removing some safeguards and Texarkana for reneging on part of the contract.(5) One other point worthy of note is that the dropout rate was reduced from four to eight students out of the potential 300 participants in grades 7 through 12.

The first year failure at Texarkana has caused more stringent safeguards in other performance contracts. A specific example is the newly created position of an "independent educational accomplishment auditor." Eighty-six such auditors have received special training and are on USOE assignment. Their function is to examine a project's evaluation and management by judging the validity of the evaluation and the success of management in meeting its goals. They may also recommend possible changes.(11) A further precautionary measure taken by the USOE was to award $614,000 to the Battelle Memorial Institute of Columbus, Ohio for testing all students participating in government supported

performance contracts for the 1970-71 school term. The agency's work will be independent of the contractors.(12) In addition, a list of safeguards necessary for an honest assessment of an evaluation is under preparation by the American Association of School Administrators.(5)

Disadvantages

Perhaps the lack of suitable testing instruments to measure change will continue to mitigate against performance contracts. Hopefully, while no company now involved in a performance contract will knowingly repeat Dorsett's error, the quality of existing diagnostic tools may hamper its efforts to show gains. The most frequently stated disadvantage of performance contracts, however, is of a different nature. Those opposed to performance contracts feel they may dehumanize education. Included in this group are seemingly a large part of the teaching profession which has been noticeably cool towards accountability. They believe no one can guarantee learning because the human factor constantly changes. They see no wrong in allowing a child to learn at his own pace.(1)

Advantages

On the other hand performance contracting may be said to have some advantages. One hope for performance contracts is that they will put the relationship between business and education on a more rational basis. The Council for Basic Education believes that they may breathe new life into schools if such contracts are conceived as a strategy for change within the educational system.(11) It also affords the opportunity to take advantage

of advanced educational technology and instructional management techniques while minimizing financial risks. This appraisal was made by Jack Stenner, a member of the Research Council of the Great Cities and a consultant on performance contracting. He also believes

> At a minimum performance contracting should have a therapeutic effect on education since it will necessitate the identification of the district's problems and afford a mechanism for their possible solution. If the solutions are not forthcoming, at least the problems will have received a hard objective appraisal -- an appraisal which is no doubt long overdue.(19)

Limitations

At this early stage of development, the problems encountered and anticipated in performance contracting are predictably more numerous than either the advantages or disadvantages. The current limitations may, in the future, fall into one or the other category or they may even never be resolved. Whatever the outcome, any party considering a performance contract should give serious attention to the following recognized limitations:

1. Not many education companies have the technical competence to make performance contracts. The contractor needs to offer solid research competence, clear evidence an adequate amount of data will be properly evaluated, teacher-training, competence in project management, and adequate working capital.

2. Many school districts are not ready to handle performance contracts. They need to understand fully the technical demands that will be placed upon them (including the purchasing of consumable materials, press releases, the designation of a project director) and be prepared to meet them.

3. Performance Contracts will not save money. Project management, teacher-training, and the sophisticated level of evaluation necessary are costly.

4. Performance contracting is not a panacea; it will not revolutionize education.(10)

Another possible limitation is that some state laws prohibit contracts with private industry for instructional services. New York, for example, forbids the use of state or local funds by school boards for performance contracts.(16) Other difficulties not specifically listed above are those regarding lines of authority. Who will select the instructional materials? Who hires, fires, and directs the teachers? How is teacher tenure affected? What are the principal's duties and powers? What safeguards are there so children will not be harmed? What is the responsibility of the school board to parents when a contractor is hired?(15)

As noted previously, evaluation remains a serious problem. If standardized tests are to be used one must consider at least their appropriateness, reliability and validity. Furthermore, careful thought must be given to the selection of other suitable measures of change.

From the point of view of research, the procedures employed thus far in performance contracting make it difficult to isolate those factors most highly related to achievement. Among the contributing variables are the Hawthorne effect, the prizes offered to teachers and pupils as incentives, and the actual instructional techniques. Unless the evaluations in the future are built into an acceptable research design, it is not clear what meaning will be obtained from the results.

The Future

Education's policy makers -- its elected and appointed school board members -- are chiefly the people who can and will decide whether performance

contracting is to become widespread educational policy.(22) A survey of a representative sampling of school board members in 47 states conducted by the American School Board Journal showed 66 2/3 percent of the respondents believed performance contracting had validity for education. The Journal concluded performance contracting had a better than even chance of becoming an important means employed by school boards to accomplish educational accountability. They predict school boards will enter into performance contracts not only with private corporations but, just as likely, with their own local teachers.(1)

Some support for this prediction is offered by the number of school districts now holding performance contracts supported by other than federal funds. Although an exact count is not available, it has been estimated to be as large as 200.(21)

Realistically, no one as yet can forsee where performance contracting will lead. While there are indications, there is very little actual data. At present performance contracting is still in an experimental state. Helen Baines, President of the National Education Association, after an extensive study, concluded:

> As things stand now, we don't know whether the contracts are written to serve the needs of children or of special interest groups. We don't know the extent, if any, to which contracts are written to meet their learning objectives -- or indeed, whether the objectives are consistent with sound educational policy.(13)

Any school district currently operating under a performance contract or entering one in the near future will be contributing to the hard data which will give some evidence of its value in education.

BIBLIOGRAPHY

1. American School Board Journal. "Two Out of Three Boardmen Buy Performance Contracting." American School Board Journal, 158:35-36; November 1970.

2. Bahr, Jerome. "Educational Auditing: Here To Stay." School Management, 13:53-54; November 1969.

3. Bratten, Dale; Gillin, Caroline; and Roush, Robert E. "Performance Contracting: How It Works in Texarkana." School Management, 14:8-10; August 1970.

4. Briner, Conrad. "Administrators and Accountability." Theory Into Practice, 8:203-206; October 1969.

5. Bumstead, Richard A. "Performance Contracting." Educate, 3:15-27; October 1970.

6. Cunningham, Luvern L. "Our Accountability Problems." Theory Into Practice, 8:285-92; October 1969.

7. Elam, Stanley. "Age of Accountability Dawns in Texarkana." Phi Delta Kappan, 51:509-14; June 1970.

8. Filogamo, Martin J. "New Angle on Accountability." Today's Education (NEA Journal), 59:53; May 1970.

9. Lessinger, Leon M. "Accountability in Public Education." Today's Education (NEA Journal), 59:52-53; May 1970.

10. Locke, Robert W. "Performance Contracts: Promise and Pitfalls." Speech delivered at Marketer and Investor's Conference, New York City, June 1970.

11. National School Public Relations Association. The Shape of Education for 1970-71. "Accountability: The New 'In' Word." Volume 12:19-23. Washington, D. C.: The Association, June 1970.

12. National Education Association (NEA). NEA News. Washington, D. C.; October 1970.

13. National Education Association (NEA). NEA News. Washington, D. C.; December 1970.

14. National Education Association. Policy Statement by NEA Executive Committee on Performance Contracting. Washington, D. C.; December 1970.

15. National Education Association. Rationale for NEA's Position on Performance Contracting. Washington, D. C.; December 1970.

16. New York State Education Department. "Performance Contracting." Inside Education, November 1970.

17. Peterson, Russell W. Accountability in Elementary and Secondary Education. Washington, D. C.: National Committee for Support of the Public Schools, July 1970.

18. Stenner, Jack. "Education Performance Contracting: The Dallas Project." Prepared for the National Academy for School Executives, AASA, October 1970.

19. Stenner, Jack. "Performance Contracting: Some Considerations." Prepared for the National Academy for School Executives, AASA, October 1970.

20. Schwartz, Ronald. "Performance Contracts Catch On." Nation's Schools, 86:31-33; August 1970.

21. U. S. News and World Report. "Where Private Firm Runs Public School." October 1970.

22. Webb, Harold V. "Performance Contracting: Is It The New Tool for the New Boardmanship?" American School Board Journal, 158:28-35; November 1970.

23. Wentworth, Eric. "Teaching Experiment is Dropped." Morning News, September 1970.

EDUCATIONAL VOUCHERS

APRIL 1971

42a

EDUCATIONAL VOUCHERS

Introduction

At no time in the past has the worth of the public school system in America been so highly questioned and criticized as the present. In a debate fed in part by The Coleman Report, the fight for school decentralization in the cities, Silberman's Crisis in the Classroom, and the public's demand for accountability, praise has been virtually nonexistent. The problems of the disadvantaged, segregation, bussing, teacher strikes, and parochial aid further complicate a complex situation. Recently, the Office of Economic Opportunity (OEO) announced the funding of a feasibility study for an education voucher system. It has been speculated its effect will be either to exponentially increase the problems of education beyond comprehension, or to offer some solutions to them.

Background

The education voucher system was developed by the Center for the Study of Public Policy (CSPP) in Cambridge, Massachusetts, with support from OEO grants. It is a comprehensively designed system for schooling based on a strong belief in the virtues of competition. The idea is not new. Competitive schools were first offered as an alternative in American education by the noted economist Milton Friedman in 1955. (7) His listeners were few. During the middle and late 60's the idea recurred, and was debated in journals, newspapers and in public forums. (5,14,17) Educational leaders like Clark, Sizer, and Jencks viewed the public school system as a protected public monopoly facing only minimal competition from private and parochial schools. Like any monopoly, the need to change and

to confront critical problems would never happen from within. A similar view was held by the U. S. Chamber of Commerce. Their task force concluded that "the present institutional structure in education may not be the best way to organize it." Rather, the government should "consider continuing to finance education for all children" offering "them as an alternative to public education, financial support for private education up to the amount of the average expenditure in local public schools." (14)

Under the direction of Christopher Jencks, the Center at Cambridge began exploring alternative ways for financing education in December 1969. Jencks has since become the leading advocate for a voucher system. The report, Education Vouchers, issued in December 1970 by CSPP contains detailed information on what an educational voucher system is and how it will operate in a proposed five-year OEO experiment beginning in the fall of 1971.

Education Voucher System Defined

According to Jencks the voucher system will free schools from existing constraints by eliminating their monopolistic privileges. If parents do not like what a school is doing, they can send their children elsewhere. The result would be an enormous pressure on the public schools to improve their quality to keep the children they serve. If they did not, Friedman predicted, they would decline and private alternatives would grow. (7) An abbreviated description of CSPP's model education voucher system follows.

The first step in operating a voucher system is the establishment of an Educational Voucher Agency (EVA). EVA is designed to be a locally controlled body which will receive federal, state and local funds for financing the education of all local children. It will not operate any schools of its own; this remains the

responsibility of the local school board. Among EVA's chief duties would be to issue and redeem vouchers, to provide student transportation, and to disseminate information on the participating schools.

Every spring each family would submit to EVA names of schools to which it wanted to send each of its school-age children in the fall. As long as it had room, a voucher school would be required to admit all students who applied. The local board of education would be responsible for ensuring enough places in publicly managed schools to accomodate every school-age child who did not want to attend a privately managed school. (4)

A voucher school could be an existing public school, a new school opened by the public school board to attract families who would otherwise withdraw their children from the public system, an existing private school, or a new private school opened especially to cater to children with vouchers. (12) In order to cash vouchers, a school would have to:

a. Accept the voucher as full payment of tuition;

b. Accept any applicant as long as it had places;

c. Fill at least half its places by random selection if they have more applicants than places and the other half as they see fit, but not discriminate against ethnic minorities;

d. Accept uniform EVA standards regarding suspension and expulsion;

e. Agree to make a wide variety of information about its facilities, teachers, programs and students available to EVA and the public;

f. Maintain accounts of money received and distributed in a form allowing parents and EVA to determine whether the school was getting its entitled resources, whether a church-operated school was subsidizing church activities, whether a school operated by a

profit-making corporation was siphoning off excessive amounts to the parent corporation;

g. Meet existing state requirements for private schools. (4)

No participating school would be permitted to discriminate against applicants on the basis of race or religion. Furthermore, revenue could be used only for secular instruction. Except for existing state regulations, there would be no restrictions on staffing, curriculum, and the like.

Having enrolled their children, parents would give their vouchers to the school which in turn would redeem them at EVA. The redemption value of a middle or upper-income family's voucher would approximate what the local public schools currently spend on upper-income children, while vouchers for children from low-income families would have a higher value. The monetary incentive for the disadvantaged is regarded as essential in order to overcome their multiple educational handicaps and make these students attractive to schools.

The Proposed Education Voucher Experiment

The Center's report contains extensive information on the proposed OEO sponsored experiment on vouchers tentatively scheduled to begin in September 1971. Only the highlights are presented here. The demonstration will be confined to a single municipality for a minimum of five to eight years. All children in grades K through six in the designated area will be eligible. In general, all of the preceding model guidelines will be observed. No voucher school will be allowed to charge tuition in excess of the vouchers. Pupils attending parochial schools will receive vouchers redeemable at no more than the cost of secular education. Vouchers for the disadvantaged will have a higher value than the others. In the case of an overflow in the number of applicants, voucher schools will be allowed

to fill a limited percent of their places as they wish with the restriction that minority groups be represented by the same percent as the minority group applicants. At least 50% of the remaining places will be filled by lottery. (18)

The demonstration area selected will have at least 10 privately controlled, secular voucher schools, several parochial voucher schools, and several neighborhood public schools. In order to have a suitable population at least 12,000 children between the ages of 5 and 11 need to be within the experimental boundaries. Members of EVA will be elected or appointed so as to represent minority as well as majority interests. (4)

Control groups and extensive evaluation will be part of the project. Among the problems to be resolved are whether the education voucher system will:

a. Increase the share of the nation's educational resources available to disadvantaged children;
b. Produce at least as much mixing of blacks and whites, rich and poor, clever and dull, as the present system;
c. Insure advantaged and disadvantaged parents equal chances of getting their children into the school of their choice;
d. Provide parents (and influential organizations) with information they think necessary to make intelligent choices among schools;
e. Avoid conflict with both the fourteenth amendment prohibition against racial discrimination and the first amendment provisions regarding church and state. (18)

Current Status

In February 1971 the OEO awarded grants to Gary, Indiana; Seattle, Washington; and Alum Rock, California to conduct voucher feasibility studies. All three areas meet the basic requirements outlined for a demonstration area. The communities are expected to tell OEO whether or not they can conduct the experiment. (12) Specifically, the districts must propose:

a. How many public schools should be included in the voucher district;

b. How to establish new schools and stimulate existing ones to participate;

c. How to enlist the support of parochial schools;

d. How much autonomy individual principals should have in designing curriculum, hiring staff, and in experimentation;

e. To what extent parents should participate. (3)

The Gary system, described as being in a deteriorating black urban area, subcontracted the work to the Institute for Advancement of Urban Education of New York. (3) The study in Alum Rock, which has a large Spanish-speaking population, has been subcontracted to the Santa Clara County Office of Education. Seattle, which has substantial minority groups, has contracted the Bureau of School Service and Research from the University of Washington to conduct the study. (8) Until these reports are completed and analyzed by OEO, all plans for the actual experiment remain tentative.

Advantages

According to its advocates, the education voucher system will:

a. Promote general improvement in education through competition;

b. Promote democratic freedom of choice;

c. Increase educational diversity;

d. Give parents some control and responsibility;

e. Promote accountability;

f. Overcome racial and economic limitations of neighborhood schools;

g. Drive bad schools out of business;

h. Improve the education of the disadvantaged;

i. Improve equity among taxpayers;

j. Increase total expenditures for education. (9,10,11,12,18)

Disadvantages

On the other hand, opponents see numerous disadvantages. Among them they believe the education voucher system will:

a. Destroy the public schools;

b. Play havoc with the stabilizing factors in our democratic society;

c. Bring religious, economic, social and political divisiveness;

d. Encourage racism;

e. Become educational hucksterism;

f. Create an unmanageable bureaucracy;

g. Dilute educational opportunities;

h. Make a farce of constitutional separation of church and state;

i. Encourage parents to choose schools based on prejudices;

j. Contradict tradition of local support and control. (1,10,13,16,18,19)

In general, organized educational groups, both union and professional, are opposed to vouchers. At the NEA July 1970 convention, a resolution was passed stating vouchers "could lead to racial, economic, and social isolation of children and weaken or destroy the public school system." It further warned competition would widen the gap between rich and poor schools since students would desert

poor schools to attend better ones, leaving a dumping ground for students whose parents don't have the sophistication to use the system. The NAACP condemned voucher plans in principle at its July convention fearing, "the result would be the perpetuation of segregation in schools." (11) Local education leaders also appear as members of the opposition. A random selection of eight school board members give an "acid assessment" of vouchers in a review by the American School Board Journal.

It should be noted that an accurate account of the opposition to vouchers is difficult because definitions for vouchers vary. Since the CSPP report was only recently issued, it is doubtful if all the opposing arguments presented above are applicable. The Center recognizes at least seven possible avenues for improving the educational system. They found the "regulated compensatory model" the most acceptable one on which to base their education voucher system. A majority of other proposed voucher plans are not based on the regulated compensatory model, and may, therefore, suffer by comparison.

State Voucher Plans

State voucher plans for aiding private schools exemplify types based on other models. Almost all proposed state legislation on vouchers, including Delaware's two house bills, is designed to prevent the collapse of the Catholic school system. (15) Five states have already enacted statutes which provide aid to privately controlled schools. The action of three of the states (Connecticut, Rhode Island and Pennsylvania) has been brought before the Supreme Court as a single case, where a ruling is expected sometime in the late spring. The legislation has been generally justified by arguments for saving the taxpayer money and preserving diversity and choice for parents. It has been opposed on the grounds that it would end the separation of church and state, exacerbate cultural schisms, and intensify racial segregation. (4)

"In general, the bills and acts take one of two forms: contracts for the purchase of secular services, or per-pupil payments to parents for private school costs. Purchase of secular services contracts usually provide that the state will pay a teacher some portion of his salary for the time spent teaching secular courses. The contracts, which sometimes also include teaching materials and the costs of standardized testing, are negotiated between the state department of education and either the school or the particular teacher. Payment is usually provided after the service has actually been rendered. The pupil payment plans provide parents with vouchers which can be negotiated for "secular educational services" at approved private schools. The amount of the voucher sometimes equals what the state would pay a local school board for educating the child, but sometimes it is simply an arbitrary amount."(4)

The majority of these bills, including Delaware's proposed legislation, differ in several fundamental respects from the OEO's proposed voucher system. They are designed to save the taxpayer money; the voucher system is not. They are designed to preserve the existing range of public and parochial alternatives; the voucher system would broaden it. They allow private schools to charge additional tuition; the voucher system forbids it. They allow private schools freedom to exclude students at will; the voucher system does not. (4)

The long-term effect of most present and proposed state legislation would be the creation of several separate systems, all financed from the public treasury, having similar programs but differing in the kinds of pupils they included or excluded. By comparison, the OEO's proposed voucher system would prevent schools from being economically or socially exclusive but would give them latitude in devising programs for the students who chose to enroll. (4)

Limitations

Without actual data, it is difficult to find support for either the opposing or supporting viewpoints on the education voucher system. The system has frequently been compared to the GI Bill to illustrate its feasibility. While some misuse occurred in the GI Bill, overall it was regarded as successful. A study of voucher systems in other countries, however, has not always been favorable. (6)

The Center recognizes some obvious limitations in its model. The system must create new schools or new places in old schools in order to avoid a "political debacle". (9) In addition, EVA must vigorously regulate the marketplace if it is not to become another layer on the crusted bureaucracy. Other problems still to be considered are: How will new school construction be finance? Who is responsible for tax apportionment formulas? Who will supervise the EVA's? What about the relations between EVA and the local school board? Finally, the constitutionality of the education voucher system is questionable.

The Future

The education voucher system, as defined by the Center for the Study of Public Policy, may offer a viable alternative to the present American system of education. Short of a demonstration, however, all discussion of it remains theoretical. It would seem an experimental study of the system seems worth a try.

REFERENCES

1. American School Board Journal. "Boardmen Can't Think of One Good Thing to Say About Voucher Plans." American School Board Journal 158: 33-37; October 1970.

2. Bane, Mary Jo. "On Tuition Voucher Proposals." Harvard Educational Review 41: 79-86; February 1971.

3. Business Week. "A Market Economy for the Schools." Business Week: 76-78; February 6, 1971.

4. Center for Study of Public Policy. Education Vouchers, A Report on Financing Elementary Education by Grants to Parents: 348 pages; Cambridge, Massachusetts; December 1970.

5. Clark, Kenneth B. "Alternative Public School Systems." Harvard Educational Review 38: 100-113; Winter 1968.

6. Clayson, A. Stafford. "Vital Questions, Minimal Responses: Education Vouchers." Phi Delta Kappan 52: 53-54; September 1970.

7. Cohodes, Aaron. "Voucher System Gets Chance to Show How It Would Work." Nation's Schools 86: 20; September 1970.

8. Educational Testing Service. Education Recaps: Princeton, New Jersey; February 1971.

9. Evening Star. "Report Warns Voucher Plan Perils Neighborhood Schools." Washington, D. C.; February 9, 1971.

10. Fox, Edward J., and Levenson, William B. "In Defense of the 'Harmful Monopoly': Merits and Limitations of the Voucher Plan." Phi Delta Kappan 51: 131-135; November 1969.

11. Janssen, Peter A. "Education Vouchers." American Education: 9-11; December 1970.

12. Jencks, Christopher. "Giving Parents Money for Schooling: Education Vouchers." Phi Delta Kappan 52: 49-52; September 1970.

13. Kornegay, William. "Open Market: A New Model for Our Schools?" Phi Delta Kappan 49: 583-586; June 1968.

14. Levine, Daniel U. "Organizing for Reform in Big-City Schools." Phi Delta Kappan 48: 311-315; March 1967.

15. Murphy, Joseph. House Bill No. 140; House Bill No. 171. House of Representatives, 126th General Assembly, First Session. Dover, Delaware; 1971.

16. Spears, Harold. "Accountability - Menace of Mania." Speech delivered at 1971 American Association of School Administrators Convention in Atlantic City.

17. Sizer, Theodore R. "Case for a Free Market." Saturday Review 52: 34-42; January 11, 1969.

18. State Education Department. Elementary and Secondary Education Vouchers: 31 pages; Bureau of Occupational Education Research. Albany, New York; October 1970.

19. Stevens, William K. "Two Cities Expected to be Named for School 'Voucher' System." New York Times; January 23, 1971.